LILIN

iMEGAPRO

Day & Night 1080P HD IP Camera
Day & Night 3MP HD IP Camera

IPG1022ESX3 / IPG1032ESX3

Instruction Manual

IMPORTANT SAFEGUARDS

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION :
TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

GRAPHIC SYMBOL EXPLANATION

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS

CAUTION

⊗ **Do not drop or strike this equipment.**
Sensitive electronics inside are vulnerable to excessive shock.

⊗ **Do not install the equipment near any naked flames or heat sources.**
Excessive heat could damage this unit.

⊗ **Do not expose this unit to rain or excessive moisture, avoid smoke and dust.**
Please the camera in an environmental housing for protection. If the camera gets wet, unplug it and have it checked by qualified service personnel.

⊗ **Do not cover cloth or to install this unit in poorly ventilated places.**
This may lead to overheating.

⊗ **Do not continue to operate if there appears to be fault.**
If the unit ceases to function, contact qualified service personnel for help.

⊗ **Do not touch the power connection with wet hands.**
Risk of short circuit or electric shock.

⊗ **Do not damage the power cord or leave it under pressure.**
Risk of fire or shock circuit.

CONGRATULATIONS

Thank you for purchasing this D/N Megapixel HD IP Camera. You now own one of the many fine network products we manufactured. This product has been carefully inspected under rigid quality control and should reach you in perfect condition. With reasonable care, it will provide years of reliable performance.

We recommend that you read this installation and operation manual thoroughly before installing and operation your new system.

Here you will find all the information you need to set up and use the system. If any questions are not answered in the manual, please contact your dealer.
Before proceeding, please read and observe all instructions and warnings contained in this manual. Retain this manual with the original bill of sale for future reference and, if necessary, warranty service.

When unpacking your new camera, check for missing or damaged items. If any item is missing, or if damage is evident, **DO NOT INSTALL OR OPERATE THIS PRODUCT**. Contact your dealer for assistance.

Executive Summary

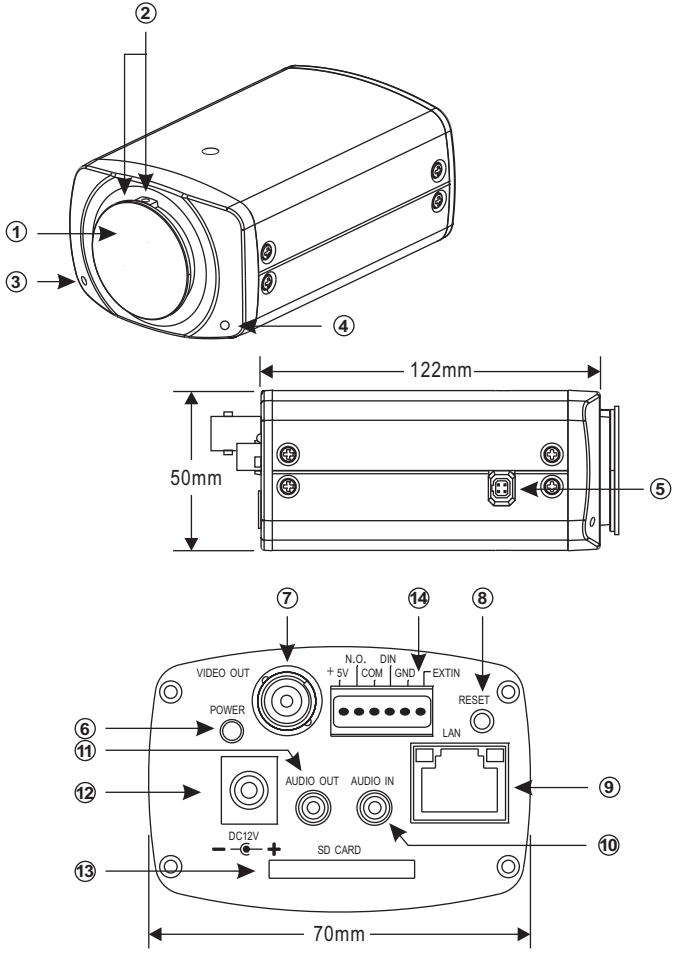
IPG1022ESX3 / IPG1032ESX3 series is an 2MP/3MP Day&Night HD IP Camera, built-in H.264 AVC(Advanced Video Coding) video compression. H.264 AVC video compression engine supports high definition video quality, 1080P(1920x1080) / 3MP(2048x1536) resolution, bandwidth efficiency with PPPoE and DDNS.

Also it provides higher bit rate of internet and diverse alarm functions such as movement video detection e-mail or FTP.

Moreover, IPG1022ESX3 / IPG1032ESX3 series can do remote surveillance with iPad, iPhone or Android cell phone.
The software R&D engineer can use HTTP protocol(HTTPAPI) or ONVIF protocol to develop related software, and integrate them with existing application software system.

IPG1022ESX3 / IPG1032ESX3 series is ideal solution for remote video monitoring via internet.

PART DESCRIPTION & DIMENSION



1. LENS MOUNT CAP
   Prevent damages to the image sensor and to keep dust away.

2. FOCAL LENGTH ADJUSTMENT RING AND LOCKING SCREW
   Use this ring to adjusts the back-focal distance or picture focus. Rotate this ring clockwise or counterclockwise for a CS-mount lens.

3. MICROPHONE
   Built-in highly sensitive capacitive microphone.

4. LIGHT SENSOR
   Day and night function auto mode detect.

5. AUTO IRIS CONNECTOR(DC Type)
   Supplies control signals to an auto iris lens(jack not supplied).

6. POWER LED
   Power ON/OFF indicator.

7. LIVE VIDEO BNC JACK
   Plug the video input of monitor to the BNC jack and adjust focus and zoom.

8. RESET KEY
   To restore the server to factory default setting.

9. RJ-45 NETWORK CONNECTOR AND INDICATOR LEDS
   Green(LINK): While cable of network is connecting the LED is light.
   Orange(ACT): When data is communicating, the LED is flashed.
   (This network camera support PoE.)

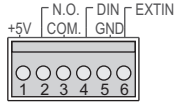
10. AUDIO INPUT 3.5mm PHONE JACK
    Can be accessed by an external microphone or audio input signal.
    (Choose from the audio settings menu to switch)

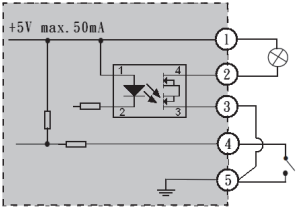
11. AUDIO OUTPUT 3.5mm PHONE JACK

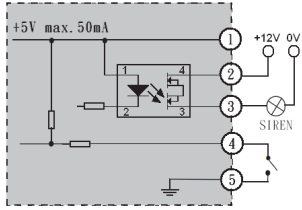
12. DC12V POWER INPUT JACK
DC12V (±10%) power input.

13. SD CARD SLOT
This network camera is compliant with SD/SDHC card.

14. ALARM IN/OUT & EXTIN TERMINAL







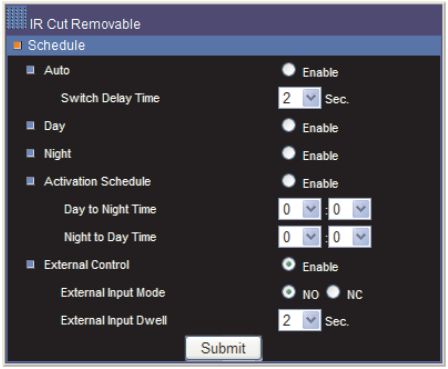
- +5V Output: Max. output 50mA.
- N.O./COM.: Max. load +60V/100mA.
- DIN terminal can be set either N.O. (normally open) or N.C. (normally close) mode.
- EXTIN: IR cut removable external control input.

◆ IR CUT REMOVABLE EXTERNAL CONTROL SETUP

Access into web page setup menu, under schedule menu, enable External Control option.

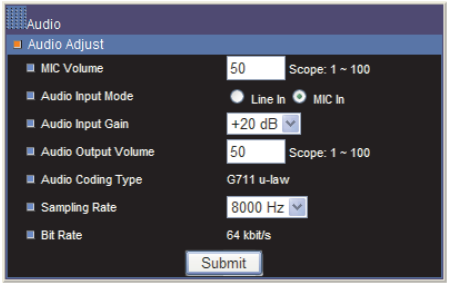
External input mode: normally open(NO) or normally closed(NC) mode is selectable.

External input dwell: may select 1, 2, 5, 10, 15, 20, 30 seconds delay time interval to avoid wrong operation caused by headlight of the front light.



◆ AUDIO INPUT MODE SETUP

Access into web page setup menu, under audio adjustment setup menu, may select Audio Input mode to either camera front microphone or rear's Audio In (Line IN).

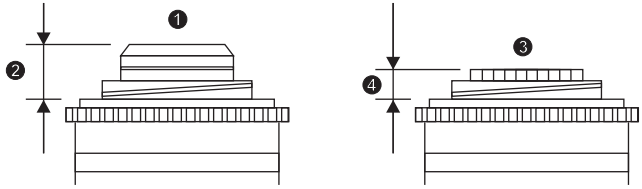


INSTALLATION

- **SUITABLE LENSES**

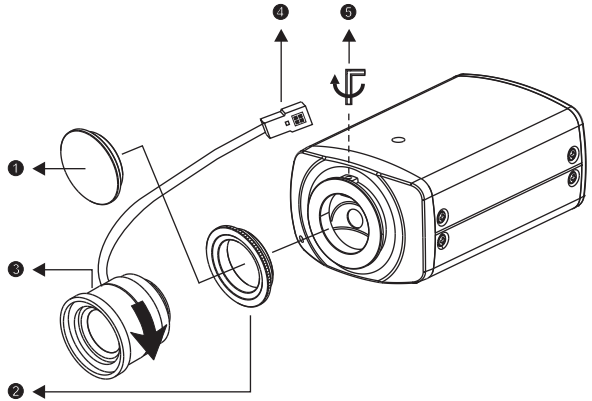
  The lens must be either a C or CS mount type. The protrusion behind the mounting surface must be within the following limits:

❶	C - mount lens	❸	CS - mount lens
❷	9mm or less	❹	4mm or less



- **FITTING THE LENS**

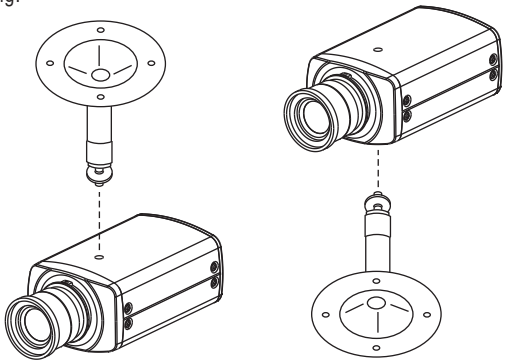
  ① Remove the lens mount cap.
  ② Screw in the C mount ring(not supplied), until it is secured. When using a CS mount lens skip step2.
  ③ Screw in the lens, until it is secured.
  ④ Insert the lens plug in the AUTO IRIS connector, when fitting a manual-iris lens, skip step4.
  ⑤ Adjust the focal length by turning the focal length adjustment ring. (Using hexagon screw driver, loose and tighten the screw.)



CAUTION

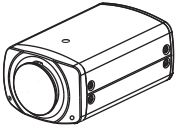
Keep the lens mount cap on the camera when not attaching a lens.

- **FITTING THE CAMERA**
  1. The mounting hole on the top or bottom of the camera.
  2. Tighten the screw to the mounting hole. Please refer to the following drawing.



PRODUCTION COMPONENTS

1. D/N 1080P/3MP HD IP Camera



2. Instruction Manual

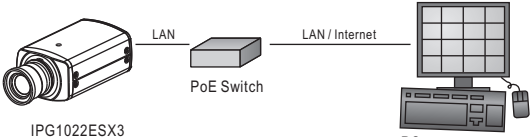
3. CD Software Pack

4. Lens and Bracket

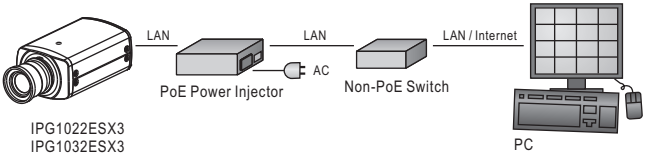
SYSTEM ARCHITECTURES

For connecting IPG1022ESX3 / IPG1032ESX3 series to the network, please follow one of the system architectures:

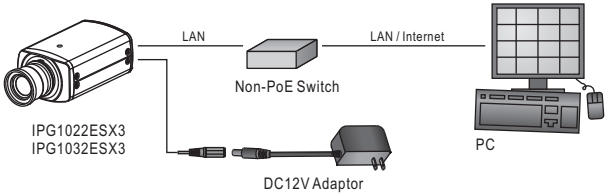
(1). Hardware Installation using a PoE Switch.



(2). Hardware Installation using a non-PoE Switch.



(3). Hardware Installation using DC12V Adaptor.



EMERGENCY FACTORY DEFAULT

Use hardware to restore factory default settings, follow these steps:

1. Hold "RESET" key 10 seconds, then release.
2. After about 40 seconds, the network LED light is off, and then lit.
3. This camera has completed the factory default settings, and then reboot.
4. Use IPScan software search for this IP device.
5. Using a Internet browser open the IP device.
6. Enter the default username "admin" and password "pass" to operate.

NOTE

For the convenience of users, restore the factory default settings will revert to the default IP address 192.168.0.200.

SPECIFICATIONS

● 1080P Day/NIght HD IP Camera

Day/Night 1080P HD IP CAMERA				
Model No.			IPG1022ESX3	IPG1022ES
Lens	Focal Length		2.8 ~ 8mm (CS Mount)	—
	Iris		F1.2	—
	Angle of View	H	100.1° ~ 35.8°	—
		V	72.9° ~ 26.9°	—
		D	123.8° ~ 44.8°	—
Pick Up Element			1/2.7" CMOS Image sensor	
Effective Pixels			1920(H) x 1080(V) = 2,073,600(pixel)	
Chip Size			5.856mm(H) x 3.276mm(V)	
Scanning System			Progressive Scan	
Infrared Cut Filter			Auto / Schedule / Day(Color) / Night(Mono) / External control	
Min. Illumination			0.6Lux at F1.2 (Low Light Mode)	
White Balance			Auto / Tungsten / Indoor / Fluorescents1 / Fluorescents2 / Outdoor1 / Outdoor2	
Back Light Compensation			Off/ On	
Electrical Shutter			1/30(25)s ~ 1/8,000s	
Sense Up			Off/ 1Frame/ 2Frames/ 3Frames/ 7Frames	
Sense Up Plus			Yes	
Auto Gain Control			36dB Variable Gain	
3D Noise Reduction			Off/ 1~32 Selectable	
2D WDR			Off/ On	
Privacy Masking			Off/ On (4 zones)	
Image Effects			Brightness, Contrast, Hue, Saturation, Sharpness, Mirror, Flip	
Live Video Output			CVBS 1.0Vp-p, 75ohm, BNC connector	
Audio In/Output			Mono, 1.4 Vp-p, 50KΩ, 3.5mm phone jack	
Operating Temperature			-25°C ~ +50°C (-13°F ~ 122°F)	
Dimension			70mm(W) x 50mm(H) x 122mm(D)	
Weight			550g	
Power Input Voltage			DC12V ±10% / PoE (IEEE 802.3af compliant)	
Power Consumption			DC12V, 6W / PoE, 7.5W	

Design and specification are subject to change without notice.

NETWORK		
Video Compression		H.264, Motion JPEG
Resolution		1080P(1920x1080) / 720P(1280x720) / D1(720x480) / CIF(352x240)
Multiple profile	Profile #1	H.264: up to 30fps @1920x1080, MJPEG: up to 30fps @720x480
	Profile #2	H.264: up to 30fps @1280x720, MJPEG: up to 30fps @352x240
	Profile #3	H.264: up to 30fps @1920x1080, MJPEG: up to 30fps @1280x720
	Profile #4	H.264: up to 30fps @720x480, MJPEG: up to 15fps @1920x1080
Video Streaming		RTP/HTTP, RTP/TCP, RTP/UDP
Video Bitrate		128Kbps ~ 5Mbps Frame rate and bit rate controllable on-the-fly VBR/ CBR/ GOP supported
Security		Base64 HTTP encryption Multiple user access levels with password protection 10 user accounts available
Users		8 simultaneous users
ePTZ & Digital Zoom		Yes, ROI is supported
OSD		Text overlay for date, time, and camera name
Alarm Functions		Alarm / motion / tampering / face detection triggering recording into SD card Image upload over FTP and E-mail by face/ tampering/ motion detection
CPU, Memory		Embedded SoC ARM11, 528MHz 256MB DDR2, 256MB flash memory
Maintenance		Firmware update via HTTP, Firmware available at web site
Network Interface		10Mbps / 100Mbps Base-T, RJ-45
PC Requirement		OS : Windows 2000, Windows XP, Windows Vista, Windows 7 Browser : Windows Internet Explore 6, 7, 8 CPU : Intel Pentium 4 1.8GHz or above RAM : 1GB or above, Independent Display Card
Network Protocols		IP, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ONVIF
Mobile Phone and PDA Support		iPad, iPhone and Android support
System Integration		ONVIF & LILIN HTTP API
CMX		CMX HD3.6 support
Video Display		LILIN Universal ActiveX & LILIN Java Applet
OS		Embedded Linux 2.6.32
Two-way Audio		G.711 / PCM
SD Card Recording		Support SD/SDHC card for circular recording (card is not included)
Alarm Input / Output		Digital 1 input (TTL, +3~5V) / 1 Output (N.O.)

Design and specification are subject to change without notice.

● 3MP Day/NIght HD IP Camera

Day/Night 3MP HD IP CAMERA				
Model No.			IPG1032ESX3	IPG1032ES
Lens	Focal Length		2.8 ~ 8mm (CS Mount)	—
	Iris		F1.2	—
	Angle of View	H	100.1° ~ 35.8°	—
		V	72.9° ~ 26.9°	—
		D	123.8° ~ 44.8°	—
Pick Up Element			1/2.8" CMOS Image sensor	
Effective Pixels			2048(H) x 1536(V) = 3,145,728(pixel)	
Chip Size			7.96mm(H) x 7.61mm(V)	
Scanning System			Progressive Scan	
Infrared Cut Filter			Auto / Schedule / Day(Color) / Night(Mono) / External control	
Min. Illumination			0.1Lux at F1.2 (Low Light Mode)	
White Balance			Auto / Tungsten / Indoor / Fluorescents1 / Fluorescents2 / Outdoor1 / Outdoor2	
Back Light Compensation			Off/ On	
Electrical Shutter			1/30(25)s ~ 1/8,000s	
Sense Up			Off/ 1Frame/ 2Frames/ 3Frames/ 7Frames	
Sense Up Plus			Yes	
Auto Gain Control			36dB Variable Gain	
3D Noise Reduction			Off/ 1~32 Selectable	
2D WDR			Off/ On	
Privacy Masking			Off/ On (4 zones)	
Image Effects			Brightness, Contrast, Hue, Saturation, Sharpness, Mirror, Flip	
Live Video Output			CVBS 1.0Vp-p, 75ohm, BNC connector	
Audio In/Output			Mono, 1.4 Vp-p, 50KΩ, 3.5mm phone jack	
Operating Temperature			-25°C ~ +50°C (-13°F ~ 122°F)	
Dimension			70mm(W) x 50mm(H) x 122mm(D)	
Weight			550g	
Power Input Voltage			DC12V ±10% / PoE (IEEE 802.3af compliant)	
Power Consumption			DC12V, 6W / PoE, 7.5W	

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Multiple profile	Profile #1	H.264: up to 30fps @1920x1080, MJPEG: up to 30fps @720x480
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	Profile #4	H.264: up to 30fps @720x480, MJPEG: up to 15fps @1920x1080
	Profile #5	H.264: up to 15fps @2048x1536
Video Streaming		RTP/HTTP, RTP/TCP, RTP/UDP
Video Bitrate		128Kbps ~ 5Mbps Frame rate and bit rate controllable on-the-fly VBR/ CBR/ GOP supported
Security		Base64 HTTP encryption Multiple user access levels with password protection 10 user accounts available
Users		8 simultaneous users
ePTZ & Digital Zoom		Yes, ROI is supported
OSD		Text overlay for date, time, and camera name
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Mobile Phone and PDA Support		iPad, iPhone and Android support
System Integration		ONVIF & LILIN HTTP API
CMX		CMX HD3.6 support
Video Display		LILIN Universal ActiveX & LILIN Java Applet
OS		Embedded Linux 2.6.32
Two-way Audio		G.711 / PCM
SD Card Recording		Support SD/SDHC card for circular recording (card is not included)
Alarm Input / Output		Digital 1 input (TTL, +3~5V) / 1 Output (N.O.)

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